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ASTORIA: INDIANS AND ILLNESSES

By Assistant Surgeon Israel Moses

(Moses, who served with Hatheway in the Pacific Northwest, prepared a report in 1852 for the Surgeon General's office. This was published four years later in a book in a chapter titled "Medical Topography and Diseases of Astoria." During the Civil War, Moses attained the rank of lieutenant colonel in the 72nd New York Infantry.)

The Columbia river is formed by the confluence of two streams. The northern, or Clark's river, arises in the Rocky Mountains, about latitude 54°, near some high peaks, called Hooker and Brown; the southern, called also Lewis', Saptin, or Snake river, having its source in the Wind River chain, in latitude 43°, and following an irregular and serpentine course, unites its waters with those of the north branch, near Fort Wallawalla, to form the largest river on this Pacific coast, which pours its immense volume into the ocean in latitude 46° 30′.

Cape Disappointment, on the north, is a high, narrow, and pine-covered promontory, joining the main land by a low neck, over which there is a portage for canoes and boats to Shoal-water bay. The shore sweeps round to Chinook point, forming a deep bay (Baker's) six miles wide. Chinook point, which is the chief fishing ground of the natives, is a bare hill, gradually sloping towards the water, and sending a long sand-spit far into the bay. From this point the northern bank of the river stretches along with numerous indentations, and receives several small streams.

Point Adams–a low, sandy spit, putting out some two miles–forms the southern promontory, about four miles across from Cape Disappointment. This is the terminating point of an extensive flat, sandy plain, of more than twenty miles long and four wide, thrown up by the waves, and left by a retrocession of the ocean. The original and true southern promontory is Killamook Head, now thirty miles below the mouth of the river. The entrances from the sea are two narrow channels leading into Baker's bay and along the southern promontory, between sand-spits and shoals, over which the waves foam and boil in so tumultuous a manner when the wind is high, as to have rendered the entrance of this river a terror to mariners.

Wild and awful, too, is the picture, and fearful the sensation, to the stranger who approaches this notorious bar for the first time during the winter season. The dangers have, however, been much lessened by the indefatigable energy and perseverance of Captain Charles White, of New York, who, in the winter of 1849-50, brought up a pilot-boat and periled life and property in his professional exertions to diminish the dangers of the bar. Previous to this time no vessel had been brought in by the southern channel. He, however, soon established it as the safest and easiest entrance, and since then few vessels have followed the former route. Though this southern entrance has been known, and is spoken of by Wilkes, it was condemned as highly dangerous. Within a comparatively short period, however, the main current of the river seems to have changed towards the southern shore, and not only has the channel deepened and become more direct, but the banks have yielded. Should the change continue, time will still farther diminish the risk as the commerce of the country attracts

greater numbers of vessels.

From Point Adams to Shark Point the shore makes a deep bend, forming Young's bay, about four and a half or five miles across, into which flow several small streams from the south. From Shark Point to Tongue Point–a high, narrow peninsula–the shore forms a gentle curve, interrupted by a projecting shelf, of small extent, where is the site of the original Astoria, and now occupied as a military post. The place commemorates, by its name, the originator of one of those bold strokes of genius which commercial minds often conceive for the extension of trade, and which not only brings pecuniary gains to the individual, but opens new and extended sources of national wealth. What then failed of success, through the infidelity of private agents and the breaking out of national hostilities, the unalterable course of destiny has brought about; not, however, before a rival and foreign company has for years held undisputed sway, and reaped a golden harvest.

Strangers arriving in the country are universally disappointed on seeing Astoria. Their memory filled with the entertaining narrative of the early settlement of the place, written by Washington Irving, a pleasing picture of an old settlement arises in their mind, and with eager gaze, as they enter the river, their eyes seek this familiar spot. But their dream is soon dispelled by the view of a line of rough bank, thickly grown with fir trees to the water's edge, and rising in irregular and broken background.

On our arrival at this place, but little of the original establishment could be traced; the knoll upon which the buildings stand contains about twenty acres of cleared land, backed by any impenetrable forest of pines. All the structures erected by the first occupants were destroyed by fire some years ago, and their only memorials are the decaying ends of pickets and heaps of crumbling chimneys. The Hudson's Bay Company erected several buildings, and made improvement, as long as the trade with the Indians made its occupancy desirable, but for several years previous to our arrival the post had become of little trading value, and the buildings had been allowed to fall into decay.

After the treaty of 1846, when the provisional territorial government enacted laws for the benefit of settlers, the lands between Shark and Tongue points were taken as "claims" by squatters, who have built themselves small houses and cultivated garden patches. The site occupied and recognized as Astoria was included in these claims, without any respect to its occupancy, by the Hudson's Bay Company. On the arrival of General John Adair, the first collector at the port of Astoria, the custom house and post office were located one mile above, where he established himself. This spot is now called Astoria by some, while that below is distinguished as Fort George, but this is contended by the rival occupants. Since the establishment of the military at this post, the citizens still occupy in common with the troops, and no reserves in this Territory having been confirmed at Washington they have continued to erect buildings and make improvements.

Immediately upon our arrival we went into camp, and set to work busily to repair the buildings abandoned by the company, and erect such others as would afford us convenient shelter for the approaching winter. This was accomplished early in November.

The country, generally, in the vicinity of Astoria, is extremely rough and rugged, broken by hills and gulches, covered with a dense forest of hemlock, spruce, cedar, cottonwood, ash, and willow, with an undergrowth of shrubs, bushes, and vines, that render it almost impossible for man or animal to penetrate. A few localities are less densely wooded, and entice the settler to pitch his tent and commence the toil of opening a farm. Clatsop plains, about fifteen miles long and four wide, is the only farming district which, as yet, has yielded crops. It is a series of three sand ridges,

successively thrown up by the ocean's waves, and left by its receding waters. The more recent formation is covered with a thin stratum of decayed vegetable matter, which increases so as to afford a foot or more depth of soil in the older formation; a narrow, shallow rivulet winds through, fringed with cottonwoods and willows. A narrow belt of forest separates these plains from the river soil.

At Astoria, the soil is, for the most part, a heavy red and black clay, mixed with some gravel, which becomes, during the rainy season, soft and sticky, and in the summer, dry and fissured. The beach is covered with pebbles and conglomerate of clay and lime, enclosing petrified shells and marine animals. Broken masses of scoriaceous rock lie along the water's edge and crop out from the banks.

Pre-eminent among the forest trees, are those of the pine tribe; three varieties are found: abies Douglasii, often attaining incredible height and circumference; abies Menziesii and A. taxifolia, or yew-leaved hemlock; thuga occidentalis, or red cedar; also juniperus Virginiana, or Virginian juniper; acer macrophylla, or large-leaved maple, not found east of the Rocky Mountains; and A. circinata, or vine maple. Of the varieties of cottonwoods: populus balsamifera, P. candidum, and P. tremulus, or aspen; Salix macrophylla, and augustifolia, large and low-leaved willows; quercus alba, or white oak, is not found below Tongue Point; fraxinus nigra, black ash; cerasus Pennsylvaticus, or wild cherry; and arbutus laurifolia, are the most prominent of the trees.

There are innumerable varieties of bushes and creeping plants: Ribes Sanguinaria, red flowering currant; Ribes spuriosa, wild gooseberry; Rubus nutocamis, capberry; R. spectabilis, thumb-raspberry; and R. pinnatifolia; the strawberry, fragaria vesca; cranberry, oxycoccus macrocarpus; gaultheria shallon. These are all wild, their fruit inferior in size and flavor to the cultivated varieties.

The potato, turnip, cabbage and beet are largely cultivated and attain an enormous size and great perfection. Wheat and corn will not ripen except in warm, sheltered nooks; oats are well adapted to the soil and climate; the small garden vegetables only succeed with great care, and are apt to be destroyed by the cold nights and late frosts; the larger fruits–peaches, apples, and pears–do not ripen. The grasses, growing on the tidelands, are tender, and afford a nutritious food to animals, which are able to keep in good condition throughout the year by grazing. Farmers rarely make any winter provision for their stock, the mildness of the winter not requiring them to be housed or fed.

Deer, antelope and black bear are found immediately in the vicinity: the cougar inhabits the woods with the rabbit and squirrel; beaver and otter are found on the small streams and along the coast; the various species of wild fowl–swan, sandhill crane, geese, ducks and snipe–abound, and are brought in in plentiful supply by the Indians; there are also pelicans, gulls, eagles (the bald and osprey), crows, ravens, woodpeckers, swallows and robins; flocks of pigeons, or doves, (Columba zanaida), not found on the Atlantic coast, arrive early in the spring, and the trees are often broken by their weight; they are inferior in flavor to the wild pigeon on the eastern side of the mountains; the grouse and pheasant do not inhabit this locality; there is a remarkable absence of singing birds.

Of the reptilia, none of the poisonous varieties are found. A green snake, with longitudinal dark stripes, two to three feet long, the lizard, and snail are seen.

Comparatively few flies, and no mosquitoes, or other annoying insects, disturb the resident; the sand-fly is occasionally troublesome toward sunset, on warm and still evenings.

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The principal food of the natives, and, until within a very few years of the early settlers in this vicinity, consisted of fish, which, from its abundance and variety, affords plentiful provision throughout the year. Soon after the rainy season, and early in spring, the fishing season commences, and the natives awake from their winter lethargy to prepare for the busy time that approaches. Canoes are launched and refitted; the nets are repaired, and gay trappings put on. This is the season of mirth and plenty. About the middle of April, the sturgeon (Accipenser) makes its appearance; its flesh is more delicate and palatable than the same variety caught on the Atlantic coast. The natives take it by hook and line, or spear; it attains a very large size. Toward the middle of May the salmon (Salmo salar) begin to come in, and increase so as to make the bay merry with their sport; they swim near the surface, and continually leap into the air, often several feet high. They run in vast shoals until the middle of summer. Sunrise and sunset are the most favorable periods for taking them; and the best fishing grounds are where the sand-spits run far out in the bay.

Chinook Point is the favorite resort of the tribes at the mouth of the Columbia, and here, morning and evening, they draw their nets, or, standing waist deep in the water, spear their game. Their nets are long and narrow, made of grass-twine; the sinkers, of stones, and floats, of wood. Leaving one end fixed in the beach, the remainder is coiled up in a small canoe, which is paddled out thirty or forty yards, following a long curve, and again brought to shore. This is continued as often as fish are caught, or until the required number are obtained. An ancient superstition deters them from selling to the whites until the salmon berries are ripe, and in no case will they part with a salmon until the heart is taken out. Upon the strict observance of these points, they rely for the plentifulness of the season. To prepare for winter use, the salmon is cut in thin slices or strips and dried on frames hung over slow fires and along the rafters of the lodge, or pounded fine and put up in bundles after being dried. The fall, or masache salmon, is an inferior variety, which runs in September and October. It is lean, of a pale pink color; and having long, sharp teeth. In seasons of scarcity it is put up for winter use but is generally not much esteemed. Richardson, in his *Fauna Americana*, describes seven varieties of salmon in the Columbia river.

The cod, or a fish much resembling it, is taken at the entrance of the bay, outside of the bar. Of the small fish there are flounder, perch, suckers, and occasionally the "ulican." This last, from being very abundant, suddenly disappeared from this locality, and is now found only in the harbors and inlets to the north. It is a delicious fish, resembling our "smelt" in size and flavor, and is so fat that, when dried, it is often burned by the natives to give light. The fisheries have, to a limited extent, been carried on by the Hudson's Bay Company, as a matter of commerce and lately by Americans. The salmon is salted and put up in barrels, and has obtained a good market in the islands and in California. In experienced hands, it would prove a source of great profit. Oysters are found in the bays and inlets, north of Cape Disappointment, small in size but of good flavor; the various kinds of soft and hard-shelled clams, muscles, terrapins, and crawfish. The former are large and of fine flavor, superior to the oysters, which are much improved by cultivation. Contemptible, however, as they would appear to one living on the Atlantic coast, they are readily sold in San Francisco at the enormous price of ten dollars a bushel. A gentleman from Virginia is now engaged in planting and feeding them, and from his success, thus far, there is every reason for believing they will attain a size and flavor equal to the finest of our Atlantic shore.

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From the above imperfect notice of the natural productions, I turn to a brief account of Indian tribes residing near the mouth of the Columbia. These consist of a few wretched representatives of three once powerful tribes–the Chinooks, Clatsops and Cathalamets.

The Chinooks reside on the north bank of the river, along Baker's bay, Chinook point, and Shoal-water bay, and are about 150 in number. They once boasted of 300 warriors, and the famous Concomly as their chief, but are now fast disappearing before the white man. Their fishing grounds are desirable for future value, and even their burial places are eagerly sought after as "good claims."

The Clatsops reside, as their name imports, on Clatsop plains. This tribe, which, at the time of the settlement of Astoria, numbered 180 warriors, is now reduced to about 20, who can hardly be said to have a local habitation. They wander about, pitching their tents or lounging about the residences of the whites, awaiting the no distant period of their entire extermination.

The Cathalamets, who are found on the island and along the banks of the river, twenty or thirty miles above, have been less exposed to intercourse with the whites, and have not disappeared as rapidly; they are, however, scattered, few in number, and gradually becoming extinct. Among them resides an old Indian, called Squamarke, who is looked upon as a sort of chief of all these scattered bands, and exerts considerable influence among them. I have heard him recite, in poetic strain, of the past glories of his race, of the martial deeds of his sire, the trophies of victory, and the triumphs after return from battle. Yet this bard of military deeds and last representative of the shadowy glory of the race does not scruple to get beastly drunk, and has lately sold his granddaughter for one hundred and fifty dollars, payable in blankets.

All feud has ceased among these various tribes. Neither has anything to excite the cupidity of the other, and but few individuals are possessed of any weapons. They rarely quarrel, except when maddened by intoxicating drinks, and then, not infrequently, one or more are shot or stabbed. He who possesses a canoe and a few blankets is esteemed wealthy; rarely an individual accumulates about him a large number of articles of finery.

A few horses are found among them but their chief mode of conveyance is by canoes, and it excites our surprise and admiration to witness the skill with which they manage these beautiful models of naval architecture. They are shaped from cedar trees, and vary greatly in size. Those used by the natives along the coast and in the neighborhood of Puget Sound are often from forty to sixty feet in length, and twelve to fifteen feet in breadth of beam, capable of accommodating sixty men. They are rapidly propelled through the water by short paddles, skillfully handled by both sexes, who kneel on rushes placed in the bottom of the canoe. Their shape is the model, in many points, of our new clipper ships, with long, sharp bows, and little curve from gunwale to keel; painted or stained black on the outside, and red within, their prows ornamented with small pebbles or shells. A hatchet and knife are the only tools employed in shaping them, and we cannot refrain from admiring the ingenuity of a people who can achieve such perfection of finish with rude instruments. What might they not accomplish, if supplied with and taught the use of tools, employed in our mechanical arts?

In rough and windy weather, they carry an immense sail, and the canoe is impelled through the water with the speed of a fish, rising on the tops of the highest waves without danger of upsetting. When the stormy west winds are driving the white caps high on the bar, I have heard a party shouting and singing, with gay dresses and gaudy ribbons, as their little bark tossed and sported on the angry waters. These coast Indians are as much at home on the water as the Apache on the plains, or the Arab on the desert.

All of these several tribes speak the same language, follow the same customs, and resemble

each other in manners, dress and person. The majority of both sexes are short, with heavy, stout bodies and limbs; generally from five to five and a half feet in height, with low forehead, rendered still lower in appearance by the flattening of the head; long, straight, coarse black hair, which is preserved with great care by both sexes. They comb, grease with fish oil, plait, braid, and decorate the hair with bright ribbons. All traces of beard on the face are carefully eradicated, also that on the pubes of either sex. Mouth wide, teeth small, and often worn to the gums; lips short, thick, and everted. The females, especially, often become grossly fat. They have short, bowed, fat legs and thighs, large ankles but small feet. The females have no attraction of face or form. Personal beauty is rarely seen. They are filthy in their habits and persons. When they have been taken as wives by the early settlers they easily learn the customs and accommodate themselves to cleanly and domestic habits. The half-breeds are more comely, and occasionally handsome. These, as soon as they reach the age of puberty, and sometimes even before, become the wives or mistresses of the whites. These Indians have generally assumed the dress of civilized nations, and a few seem well and genteelly clothed. Many of the females have learned to make their own garments. Most frequently they present a fantastic arrangement of articles.

In their primitive condition their only mantle in summer was a fringe made of grass, or fibres of cedar bark, covering the pelvis. In winter they wrapped themselves in mats or the skins of animals, and burying themselves in holes dug in the ground, or small lodges built of mats and cedar branches, there remain during the rainy season, with a small fire in the center, filling the place with smoke–a small aperture in the roof being its only means of escape. Within a few years they have erected large lodges of boards and planks picked up along the river banks carried down by the current, and floated off from the mills by the spring freshets.

Since the discovery of gold on the Pacific coast the Indians have occasionally accumulated quite large sums, but, as their only idea of the object of money is to satisfy their immediate wants, they rarely have it. When the mines of California almost entirely deprived Oregon of its male population, the Indians became useful as laborers, and when canoe traveling was the only means of transportation, they reaped a rich harvest. Like all savage tribes, they are inconstant, and, having obtained sufficient to satisfy their present desires, no inducements will prevail upon them to continue any useful occupation.

In morals they resemble most of the Indian tribes. As soon as a man is able to support a wife he makes his selection, informs the parents and friends who, in conclave, determine the amount to be paid by the suitor. This being arranged satisfactorily, a day is appointed when a mutual exchange is made, the bride being turned over to the groom, the blankets, horses, canoes, and slaves are paid to the wife's relations; a dance, a feast, an exchange of presents, and not infrequently a bloody quarrel end the ceremony. A chief may possess as many wives as he can support, but, as among less barbarous nations, he has one favorite. Being thus a merchantable article, their women may be procured by an respectable native or white man who can afford the prices. Chastity is unknown among the single, and constancy rarely practised among the married. Occasional exceptions may be found among those who have white husbands.

Their religion, if it may be so called, is the belief in a good and evil spirit. The former dwells above, and is called "Sahaleedikee" (a name given to any high official personage), who, when pleased, sends mild winters, abundance of salmon and fruitful summers. His wrath is betokened by a hard winter, scarcity and epidemic diseases. There are some curious and interesting myths among them. Particular localities are supposed to be the favorite abodes of the good spirit. They have a

faint tradition of a deluge and earthquakes.

The decay of the Indian tribes along the Columbia has been fearfully rapid. A robust and numerous people, they have disappeared almost as by the wand of a magician. A severely fatal epidemic of measles carried off nearly half the tribes in 1829 and 1830, which was followed by a congestive form of intermittent fever, that has reappeared at various times, and created vast havoc. But the scourge of these nations has been syphilis, and its sequent, scrofula, in the most fatal forms. At the period of Lewis and Clark's visit to the mouth of the Columbia, syphilis was scarcely known. But as soon as vessels began to enter the river the disease appeared and rapidly spread. Ignorant of any curative means, vast numbers have died from the primary disease, while in its secondary and transmitted forms, generations have perished unborn; glandular and eruptive diseases have carried off the infants; tubercular phthisis blighted their youths and brought their young men and matrons to premature old age, and an early grave. It is remarkable that very few can be found among the men who have not lost one eye by ophthalmia (syphilitic or gonorrheal). Many are absolutely deformed by enlargement of the cervical glands, frequently suppurating, discharging, and forming frightful cicatrices. Hare-lip and cleft palate are often seen; the idiopathic, and severer forms of malarial fever, almost never. Abortion is common, and not infrequently brought about intentionally.

Child bearing is a no more easy nor less dangerous process than among other females in the same circumstances of life. The older females of the neighborhood are the midwives, and are quite as good and useful as our more fashionable monthly nurses. Where nature is not interfered with, and no unusual malposition or malformation presents, the infant safely enters the world. Should any abnormal circumstances arise, the child or mother, or most frequently both, are sacrificed. The attending midwife calls in consultation other sage femmes, and these failing to afford relief, the woman is left to die. But deformity of the pelvis being rare, and the children generally small, these accidents seldom occur.

The infant, immediately after ablution, is straightened out, tightly swathed, with the arms included, and placed on a board to be submitted to the process of flattening of the head. This is effected by pads, suitably placed over the frontal bone, inclining from the superciliary arch to the vertex; counter pressure being made by a pad under the occipital bone. The pressure is maintained during one year, when the bones having sufficiently ossified to retain the desired shape, the pads are removed. Infants do not appear to suffer by this pressure, which is kept up day and night. They nurse well, and sleep comfortably. Among certain tribes side-pads are used, so as to render the head pointed, but this is not followed with the Chinooks.

In ordinary cases of sickness the aid of the medicine man, or doctor, is called in. This individual is held in high estimation, and demands large fees for his advice and services. These are given at a vast personal risk, and somewhat upon the terms of their advertising professional brethren in large cities. Upon visiting the patient and receiving his fee the doctor goes actively to work to drive out the evil spirit from the suffering body, where it has assumed the form of a wolf, a snake, a beaver or large stone. The friends having formed a circle, a low and solemn incantation is commenced, accompanied by the regular beating of small sticks of wood, and gradually swells in tone and rapidity of utterance until it becomes a howling, yelling, frightful succession of sounds.

The doctor, sitting at the bed-side, swaying his body to and fro, keeping time to his song of invocation, begins to press and knead the breast and abdomen. As he becomes excited he jumps up and dances about the lodge, with constant and most fatiguing gesticulation of head, arms, legs, and body, until he either becomes frantic by excitement or falls exhausted. Having by this time arrived

at a just appreciation of the shape of the disease, he retires from the lodge, and after a suitable interval returns, and in a most dignified manner resumes his position and song.

When thus a second time the necessary pitch of excitement is attained, he suddenly thrusts his hands beneath the blankets, and to the surprise, delight and admiration of the assembled friends, jerks out and casts among them a dead wolf, serpent, beaver or stone, having thus successfully combated the disease. Should the unhappy victim of Æsculapian Art fortunately get well, the doctor remains in peaceful enjoyment of his professional gains. Should death, however, have knocked at the door of the lodge during these mockeries, as he invariably does in severe cases, the doctor not only has expended his time and labor for nothing, but now has forfeited his life by failing to restore his patient to health. If he can compromise the matter with the relations and friends of the diseased, by paying his value, estimated in horses, blankets, canoes, or slaves, he redeems his own life; but failing to satisfy the demands of the afflicted, who are usually very exacting, he may not expect to live to see the sun rise many times.

The burial grounds in the neighborhood and along the river, attest the numbers of this people who have passed away. They are sacred spots near the bank, and often on naked and isolated rocks. The corpse, if of a chief, or distinguished man, attired in his best habiliments and gaudiest ornaments, is wrapped in blankets, and placed in his canoe, his fishing net and spears by his side. Around are hung cooking utensils, tin pans, and plates, and thus equipped he is suspended on the branches of a tree, or raised on a platform, if buried on the main land; or secured on the top of some island rock, his spirit enjoying the fullness of happiness above, his body to await the solemn day of resurrection, when he shall be prepared to launch his barque upon the gladsome waters, and the sporting salmon shall yield him abundance.

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The most noticeable feature in the climate of Astoria is its equability. The summers are cool, dry, and healthy, the winters stormy, rainy and disagreeable but mild. The troops arriving early in June went into camp, and remained in tents until November, by which time suitable buildings had been prepared for their accommodation.

From the hospital records it is ascertained that, during the first month after our arrival, five cases of malarial fever occurred, and two in each of the next two succeeding months. There were relapses, caused by exposure and lying on the ground, in persons who had suffered from the disease at Vancouver. No other case occurred subsequently among the troops, and the disease, when it attacked either the citizens or Indians, could be distinctly and directly traced to a visit up the river. I did not see a single case of any idiopathic fever.

Five cases of erysipelas occurred–one in October, two in November, and two in December, 1850, and may be accounted for by the prevalence of cold, rainy and foggy weather; the men being in tents until the middle of November. The disease was mild and yielded readily to the external application of a strong solution of nitrate of silver and the administration of full doses of quinine–a plan of treatment which I found highly successful in Toluca, Mexico, where the disease arose from the same exciting causes.

Affections of the bowels prevailed to a considerable extent during the summer and autumn of 1850, although the cases among the troops were mild and of short duration. I met with many severe and three fatal cases among citizens.

The cholera which prevailed in California seemed to extend its influence in some degree to this place. One well marked case occurred about a mile above our post. A large proportion of the residents of Pacific City (a small village under Cape Disappointment) were attacked with diarrhea and dysentery; one fatal case occurred, to which I was called a few hours before death. The patient had frequent and copious dejections of dark clotted blood, mingled with some fecal matter. He had been sick only six or seven days. Several passengers died on the voyage, and others arrived at this post ill with bowel complaints. Of those who were landed and placed under my care, two died with the same, but less urgent symptoms, as the fatal case at Pacific City. One family consisting of father, mother and three children were seized within a few hours of each other. Blisters to the abdomen, opium and mineral astringents, with the most careful diet, were the principal therapeutical means employed.

Constipation being often complained of among troops as a reality, or oftener as a reason for being excused from duty, the twelve cases reported will be found nearly equally distributed through the sixteen months.

One-eighth of all the cases reported were catarrhs, mostly of a mild character. In December, 1850, an influenza prevailed, and many complained, but the symptoms not being sufficiently urgent the cases are not reported. This influence was felt in the interior of the Territory among the inhabitants generally. Two cases among the troops were attended with active febrile movement, intense headache, pains in the back and limbs, anorexia and painful cough; antimonials and low diet relieved the symptoms, and convalescence was rapid. Seven cases of catarrh occurred in April, 1851, among a detachment of rifles en route for California; they had just left their comfortable quarters at Columbia Barracks, and were exposed in tents at Astoria during wet weather. Occasional cases occurred during other months.

More than one-third of all the cases were syphilitic, which being early taken in hospitals readily yielded to the usual remedies; the frequency of this disease is explained by my previous remarks concerning the Indians. Rheumatism was confined to two or three old soldiers who after any unusual exposure or before any extraordinary detail were certain to have an attack. Twenty-six, or one-eighth of all reported, were cases of injuries or wounds ...

From the above analysis of the sick-report, it will appear that the troops at this post enjoyed an almost complete immunity from disease having an endemic origin, and, leaving out venereal diseases, an unusual degree of good health ...

While the equableness of the temperature throughout the year, the mildness of the climate, and the absence of all causes of endemic disease ensure perfect healthfulness, there are few who would select this as an agreeable place of permanent residence. The winters are cheerless, rain falling day after day for nearly six months; a dense foggy atmosphere, with hardly an interval of sunshine. The summers are short and dry, atmosphere frequently foggy or smoky, mornings warm, succeeded about 10 by a fresh sea breeze and cool evenings. Late in the spring, a cold, frosty northwest wind will frequently blow suddenly, accompanied by hail, blighting the young leaves and killing tender plants which have struggled into a feeble existence.

I found the temperature so unpleasantly cool during the evening while in camp soon after our arrival that I invariably had a fire kindled in front of my tent or passed the time in our mess tent, where a large stove was put up. During the whole period of my residence at Astoria I can confidently say there were not ten days that I was without fire in my quarters. During the warmest hours of the warmest days we could not complain of heat. Summer vestments were never needed.

If a few hours, early in the day, seduce one into assuming a lighter material, the cool sea breeze of the afternoon soon warns him that comfort requires woolen garments. I would not be understood, however, that there is no pleasant weather. On the contrary, there are days when one may enjoy the brightest rays of the sun, the clearest and deepest of blue skies, the balmiest breathings of the south, and nights when heaven seems to have unfolded the brightest page of its mystic scroll. The aurora is frequent during the spring, and intensely brilliant. Thunderstorms are not frequent nor severe.

Astoria affords a pleasant place of resort from the hot, dusty, and malarial atmosphere of Portland and its vicinity, and in the future growth of the Territory, Clatsop plains will be on these western shores what Newport and Cape May are on the Atlantic. The fashionable belle, paled by her winter's dissipation, and the gouty and overfed man of business will flee the city to enjoy a few weeks of pure air and renew their vigor in the sportive waves of the Pacific ocean.